Serial Number: 10/017,800

Filing Date: December 12, 2001

Title: RATE SMOOTHING CONTROL

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REMARKS

This responds to the Advisory Action dated April 21, 2005 and the final Office Action dated February 8, 2005.

Claims 1, 16, 29, and 32 are amended. Claims 1-36 are now pending in this application.

§103 Rejection of the Claims Using Stroebel

Claims 1, 2, 15-20, 31 and 32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Stroebel et al. (U.S. Patent No. 5,725,561, hereinafter "Stroebel").

Claim 1

Claim 1 has been amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 1, Applicant respectfully traverses the rejection and submits that Stroebel does not teach or suggest the recited subject matter. For example, Applicant is unable to find in Stroebel, among other things, a teaching or suggestion of a rate smoothing module configured to adjust at least one parameter of a plurality of parameters of a rate smoothing algorithm based on whether the predetermined state is present, as recited in claim 1.

Applicant respectfully requests reconsideration and allowance of claim 1.

Claims 2 and 15

Applicant respectfully traverses the rejection of claims 2 and 15. Claims 2 and 15 are dependent on claim 1. Thus, the discussion above for claim 1 is incorporated herein to support the patentability of claims 2 and 15.

Applicant respectfully requests reconsideration and allowance of claims 2 and 15.

Claim 16

Claim 16 has been amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 16, Applicant respectfully traverses the rejection and submits that Stroebel does not teach or suggest the recited subject matter. For example, Applicant is unable to find in Stroebel, among other things, a teaching or suggestion of adjusting at least one

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parameter of a plurality of parameters of a rate smoothing algorithm if the state of the at least one of the cardiac signal and the physiologic parameter corresponds to the predetermined state, as recited in claim 16.

Applicant respectfully requests reconsideration and allowance of claim 16.

Claims 17-20 and 31

Applicant respectfully traverses the rejection of claims 17-20 and 31. Claims 17-20 and 31 are dependent on claim 16. Thus, the discussion above for claim 16 is incorporated herein to support the patentability of claims 17-20 and 31.

Applicant respectfully requests reconsideration and allowance of claims 17-20 and 31.

Claim 32

Claim 32 has been amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 32, Applicant respectfully traverses the rejection and submits that Stroebel does not teach or suggest the recited subject matter. For example, Applicant is unable to find in Stroebel, among other things, a teaching or suggestion of adjusting at least one parameter of a plurality of parameters of a rate smoothing algorithm if the state of a cardiac signal corresponds to at least one predetermined heart rate state, as recited in claim 32.

Applicant respectfully requests reconsideration and allowance of claim 32.

§103 Rejection of the Claims Using Boute and Stroebel

Claims 1, 2, 15-20, 31 and 32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Boute et al. (U.S. Patent No. 4,503,857, herein after "Boute") in view of Stroebel.

Claims 3-6 and 29 are rejected under 35 U.S.C. § 103(a) as being obvious over Boute in view of Stroebel or in view of Stroebel.

Claims 28 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Boute in view of Stroebel or over Stroebel.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 – EXPEDITED PROCEDURE

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Claim 1

Claim 1 has been amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 1, Applicant respectfully traverses the rejection and submits that Boute and Stroebel, each alone or in combination, do not teach or suggest the recited subject matter. For example, Applicant is unable to find in Boute and Stroebel, each alone or in combination, among other things, a teaching or suggestion of a rate smoothing module configured to adjust at least one parameter of a plurality of parameters of a rate smoothing algorithm based on whether the predetermined state is present, as recited in claim 1.

Applicant respectfully requests reconsideration and allowance of claim 1.

Claims 2 and 15

Applicant respectfully traverses the rejection of claims 2 and 15. Claims 2 and 15 are dependent on claim 1. Thus, the discussion above for claim 1 is incorporated herein to support the patentability of claims 2 and 15.

Applicant respectfully requests reconsideration and allowance of claims 2 and 15.

Claim 16

Claim 16 has been amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 16, Applicant respectfully traverses the rejection and submits that Boute and Stroebel, each alone or in combination, do not teach or suggest the recited subject matter. For example, Applicant is unable to find in Boute and Stroebel, each alone or in combination, among other things, a teaching or suggestion of adjusting at least one parameter of a plurality of parameters of a rate smoothing algorithm if the state of the at least one of the cardiac signal and the physiologic parameter corresponds to the predetermined state, as recited in claim 16.

Applicant respectfully requests reconsideration and allowance of claim 16.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 – EXPEDITED PROCEDURE

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Claims 17-20 and 31

Applicant respectfully traverses the rejection of claims 17-20 and 31. Claims 17-20 and 31 are dependent on claim 16. Thus, the discussion above for claim 16 is incorporated herein to support the patentability of claims 17-20 and 31.

Applicant respectfully requests reconsideration and allowance of claims 17-20 and 31.

Claim 32

Claim 32 has been amended to better describe the recited subject matter. Insofar as the rejection is applied to claim 32, Applicant respectfully traverses the rejection and submits that Boute and Stroebel, each alone or in combination, do not teach or suggest the recited subject matter. For example, Applicant is unable to find in Boute and Stroebel, each alone or in combination, a teaching or suggestion of adjusting at least one parameter of a plurality of parameters of a rate smoothing algorithm if the state of a cardiac signal corresponds to at least one predetermined heart rate state, as recited in claim 32.

Applicant respectfully requests reconsideration and allowance of claim 32.

Claim 3-6 and 29

Applicant respectfully traverses the rejection of claims 3-6. Claims 3-6 are dependent on claim 1. Claim 29 is dependent on claim 16. Thus, the discussion above for claim 1 is incorporated herein to support the patentability of claims 3-6, and the discussion above for claim 16 is incorporated herein to support the patentability of claim 29.

The final Office Action dated February 8, 2005 states that claims 3-6 and 29 "are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious" The Advisory Action dated April 21, 2005 states that the "102 rejection is not valid" and that "the 103 rejection is still valid and remains." Applicant therefore addresses only the rejection of claims 3-6 and 29 under 35 U.S.C. 103(a).

Applicant respectfully requests reconsideration and allowance of claims 3-6 and 29.

AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 – EXPEDITED PROCEDURE

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Claims 28 and 30

Applicant respectfully traverses the rejection of claims 28 and 30. Claims 28 and 30 are dependent on claim 16. Thus, the discussion above for claim 16 is incorporated herein to support the patentability of claims 28 and 30.

Applicant respectfully requests reconsideration and allowance of claims 28 and 30.

Reentry of Withdrawn Claims Requested

Claims 7-14, 21-27, and 33-36 were withdrawn from consideration. In light of what is believed to be allowable as discussed above, Applicant respectfully requests reentry and consideration of claims 7-14, 21-27, and 33-36 in this application.

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CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 373-6965 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first cass mail, in an envelope addressed to: Mail Stop RCE, Commissioner of Patents, P.O. Box 1450,

Alexandria, VA 22317-1450, on this _____ day of May, 2005.

Date 5/9/2005

Name

Signature